

Symbol	Symbol Name (Alternate Shape Name)	Symbol Description
	Terminator (Terminal Point, Oval)	Terminators show the start and stop points in a process. When used as a Start symbol, terminators depict a <i>trigger action</i> that sets the process flow into motion.
	Process	Show a Process or action step. This is the most common symbol in both process flowcharts and business process maps.
	Predefined Process (Subroutine)	A Predefined Process symbol is a marker for another process step or series of process flow steps that are formally defined elsewhere. This shape commonly depicts sub-processes (or subroutines in programming flowcharts). If the sub-process is considered "known" but not actually defined in a process procedure, work instruction, or some other process flowchart or documentation, then it is best not to use this symbol since it implies a formally defined process.
	Alternate Process	As the shape name suggests, this flowchart symbol is used when the process flow step is an alternate to the normal process step. Flow lines into an alternate process flow step are typically dashed.
	Decision	Indicates a question or branch in the process flow. Typically, a Decision flowchart shape is used when there are 2 options (Yes/No, No/No-Go, etc.)
	Data (I/O)	The Data flowchart shape indicates inputs to and outputs from a process. As such, the shape is more often referred to as an I/O shape than a Data shape.
	Document	Pretty self explanatory - the Document flowchart shape any process flow step that produces a document.
	Multi-Document	Same as Document, except, well, multiple documents. This shape is not as commonly used as the Document flowchart shape, even when multiple documents are implied.
	Preparation	As the names states, any process step that is a Preparation process flow step, such as a set-up operation.
	Display	Indicates a process flow step where information is displayed to a person (e.g., PC user, machine operator).
	Manual Input	Manual Input flowchart shapes show process flow steps where the operator/ user is prompted for information that must be manually input into a system.
	Manual Operation	Manual Operations flowchart shapes show which process steps are not automated. In data processing flowcharts, this data flow shape indicates a <u>looping operation</u> along with a loop limit symbol (which is not supported by Microsoft Office, but a Manual Operation symbol rotated 180° will do the trick.)
	Card	This is the companion to the punched tape flowchart shapes. This shapes is seldom used.
	Punched Tape	If you're very good at stretching all the life out of a machine, you may still have use for

	Punched Tape	the Punched Tape symbol - used for input into old computers and CNC machines.
	Connector (Inspection)	Process Flowchart: In process flowcharts, this symbol is typically small and is used as a Connector to show a jump from one point in the process flow to another. Connectors are usually labeled with capital letters (A, B, AA) to show matching jump points. They are handy for <u>avoiding flow lines that cross other shapes</u> and flow lines. They are also handy for jumping to and from a sub-processes defined in a separate area than the main flowchart. Business Process Map: In process maps, this symbol is full sized and shows an inspection point in the process flow. [Just to confuse things further, some people will use a circle to indicate an operation and a square to indicate an inspection. That's why it's important to include a symbol key in the flowchart.]
	Off-Page Connector	Off-Page Connector shows continuation of a process flowchart onto another page. When using them in conjunction with Connectors, it's best to differentiate the labels, e.g. use numbers for Off-Page Connectors and capital letters for Connectors. In actual practice, most flowcharts just use the Connect shape for both on-page and off-page references.
	Or	The logical Or symbol shows when a process diverges - usually for more than 2 branches. When using this symbol, it is important to label the out-going flow lines to indicate the criteria to follow each branch.
	Summing Junction	The logical Summing Junction flowchart shape is shows when multiple branches converge into a single process. The merge symbol is more common for this use, though. This symbol and the Or symbol are really more relevant in <u>data processing flow diagrams</u> than in process flowcharts.
	Collate	The Collate flowchart shape indicates a process step that requires <u>organizing data, information, or materials according into a standard format or arrangement.</u>
	Sort	Indicates the <u>sorting of data, information, materials into some pre-defined order.</u>
	Merge (Storage)	Process Flowchart: In process flowcharts, this symbol shows the merging of multiple processes or information into one. Business Process Map: In process mapping, this symbol is commonly indicates storage of raw materials.
	Extract (Measurement)	Process Flowchart: In my personal experience, I have only seen the Extract flowchart shape indicates a Measurement, with a capital 'M' inside the symbol. Business Process Map: Often indicates storage of finished goods.
	Delay	The Delay flowchart symbol depicts any <u>waiting period that is part of a process.</u> Delay shapes are common in process mapping.
	Stored Data	A general Data Storage flowchart shape used for any process step that stores data (as opposed to the more specific shapes to follow next in this table).

Flowchart Symbol Cheat Sheet

Flowchart Symbol	Name (Alternates)	Description
	Process	An operation or action step. <i>send order / check address / install</i>
	Terminator	A start or stop point in a process. <i>Start/Begin (End/Exit/Remove)</i>
	Decision	A question or branch in the process. <i>Q → (writing the right Q)</i>
	Delay	A waiting period.
	Predefined Process	A formally defined sub-process.
	Alternate Process	An alternate to the normal process step.
	Data (I/O)	Indicates data inputs and outputs to and from a process. <i>(Receive Data / Generate Report)</i>
	Document	A document or report. <i>Written Report, Letters, Computer printouts</i>
	Multi-Document	Same as Document, except, well, multiple documents.
	Preparation	A preparation or set-up process step. <i>Sub Routine</i>
	Display	A machine display.
	Manual Input	Manually input into a system.
	Manual Operation	A process step that isn't automated.
	Card	A old computer punch card.
	Punched Tape	An old computer punched tape input.
	Connector	A jump from one point to another. <i>big → inspector : check order for errors</i>
	Off-Page Connector	Continuation onto another page.
	Transfer	Transfer of materials.
	Or	Logical OR
	Summing Junction	Logical AND
	Collate	Organizing data into a standard format or arrangement.
	Sort	Sorting of data into some pre-defined order.
	Merge (Storage)	Merge multiple processes into one. Also used to show raw material storage.
	Extract (Measurement) (Finished Goods)	Extract (split processes) or more commonly - a measurement or finished goods.
	Stored Data	A general data storage flowchart symbol.
	Magnetic Disk (Database)	A database.
	Direct Access Storage	Storage on a hard drive.
	Internal Storage	Data stored in memory.
	Sequential Access Storage (Magnetic Tape)	An old reel of tape.
	Callout	One of many callout symbols used to add comments to a flowchart
	Flow Line	Indicates the direction of flow for materials and/or information

[Courtesy of BreezeTree Software - Makers of FlowBreeze Flow Chart add-In for Excel](#)

high hazard conditions or situation



octagon



Hexagon

6.2.2011
process model
1 graphix (process for 6.2)

	☒ Open	Description	Assigned To	Deadline
1	☐	DMAIC Pathway		
2	☐	Define		
3	☐	 Critical-to-Quality Matrix or XY Matrix		
4	☐	 Brainstorm: What are the problems of the process?		
5	☐	 Brainstorm: What are the goals and benefits of the project?		
6	☐	 Project Charter for Six Sigma Breakthrough		
7	☐	 Cost of Poor Quality Estimation Worksheet (COPQ)		
8	☐	 SIPOC Diagram: Show suppliers, inputs, process, outputs and customers.		
9	☐	Measure		
10	☐	 Define defect, opportunity, unit and metrics		
11	☐	 Develop detailed process map to identify areas where data collection should take place		
12	☐	 Develop data collection plan		
13	☐	 Develop appropriate charts to use the measurement system.		
14	☐	 Use histograms with spec limits to determine initial process performance and process sigma.		
15	☐	Analyze		
16	☐	 Define performance objectives		
17	☐	 Flowchart: Identify value and non-value added process steps		
18	☐	 What is the available data telling us?		
19	☐	 Guess at root cause(s) of variation		
20	☐	 Use the DOE (Design of Experiments) Planning Worksheet to design experiments to get new data that is needed.		
21	☐	 Collect and analyze new data.		
22	☐	Improve		
23	☐	 Brainstorm potential solutions		
24	☐	 Map the potential process		
25	☐	 Do we need further data? Use the DOE planning sheet again.		
26	☐	 Analysis of new data.		
27	☐	 FMEA: Assess failure modes of potential solutions		
28	☐	 Make any corrections to the potential process		
29	☐	Control		
30	☐	 Collect data and make control charts and histograms for key measurements		
31	☐	 Develop a control plan for on-going improvement		
32	☐	 Revisit the Cost of Poor Quality Estimation Worksheet (COPQ): How much money did we save?		
33	☐	Close the project, back it up, publish highlights.		

-  **Comments**
(Provides - Operation - Action - Task - Activity)
(Tasks are times, functions and/or by the element string against main process)
-  **Alternate Process**
(The function is used in each step in the process flow step to be shown in the normal process step. How does it in alternate process flow step are typically defined)
-  **The Case**
-  **Multiple Document**
-  **Document - Report - Form - Letter - Computer Printout**
(Reports under the main function who is directly responsible for it)
-  **Start - Begin**
(Connector - Terminal Point) Show the start point in a process
-  **End - End**
(To designate the ending point of the process, the shape have been selected which is different than the out shape)
-  **Manual Input**
(The shape looks like a side view of a keyboard and often represents entering data into a computer via a keyboard)
-  **Published Process - Sub-Process**
(Refers to a process that is defined elsewhere)
-  **Screen - Extract**
(Involves removal of one or more specific acts or items from a set)
-  **Integr.**
(Combines two or more sets of items into one set)
-  **OR**
(Shows that the output Task could be Task-A or Task-B)
-  **AND**
(Sublight the logical AND with the 2 inputs in the data processing flow diagrams and shows 1 output. I used it here in the process flowchart to show that the activity are Task-A and Task-B. I input show 2 outputs)
-  **Connector**
(The small circle is often used for this purpose but to differentiate it from the inspection symbol I used the offpage symbol to show the process flow to another page, in the same page or in other sub-process)
-  **Package**
-  **Screen**
-  **Display - Show - Monitor - Screen**
(The shape is used to show that the information is being displayed to the user. It often refers to the display, or a PC)
-  **Internal Storage**
(Data, Data, Data, Data)
-  **Post**
-  **Queue**
(The shape is supposed to look like a post (Queue) that and it replaces the old top storage shape which looks like a Q)
-  **Telephone Call**
-  **File**
-  **E-mail**
-  **Fax Office**
-  **Fax Communication Method**
(Telephone Call, Fax, E-mail or Fax Office)
-  **Mass Physical - Transportation**
(Indicates the movement of material from one place to another)
-  **Stock - Hold - Wait - Temporary Storage of Material**
(Represents a waiting period where no activity is done)
-  **Inspection - Examination - Signify**
(Represent the point at which a signature is required after inspection and examination)
-  **Preparation**
(The shape used to differentiate between steps that prepare for work versus steps that actually do the work)
-  **Manual Operation**
(Shows any operation or adjustment that has to be done by hand rather than automatically)
-  **Permanent Storage of Material**
(The shape represents storage regardless of the storage medium)
-  **Decision**
(Indicates a question or choice in the process flow)
-  **Complete**
-  **Check**
(Used to denote that the process flow has stopped so that an evaluation or check can occur)
-  **Sort - Distribute**
(Changes a Set of Items or Data into a Sequence or pre-defined order)
-  **Collate**
(Indicates a process step that requires organizing data, information or materials according into a standard format or arrangement)
-  **Merge**
(Indicates the flow of the Main Process)
-  **Merge**
(Indicates the flow of the Main Process)
-  **Merge**
(Indicates the flow of the Main Process)

(punctuation guide).



Process.



Document (Report/Form)



Off-Page Connector.

Preparation (prepare).

merge.

compare check

manual operation.

input (Enter)

Sort/distribute.

Collate

database



package



Multi Document



Delay (Hold/wait)

Telephone Call

Pre-defined Process. (Doc/XLS/Reference).

E-mail.

Move physically.

storage

Select/Extract

inspection.



Fax

print

transport

Post office.

Any Communicator Media.

3rd Party Application.

(Save/Disk/Hard Drive/File)

(Display/Show/monitor/screen)

Reduce

improve

Process

Doc/XLS/Reference.

E-mail.

Move physically.

storage

Select/Extract

inspection.

Old.

Artificial

Inexpensive

technology

Dignity.

happy

Expensive.

necessary.

Non Value add

but

gold

paper.

necessary.

necessary.

-  document
-  *connector*
-  off-page
-  Preparation.
-  stop.
-  Merge.
-  compare.
-  Manual Operation.
-  " input
-  sort / Distribute.
-  Collate.
-  Multiple-Documents.
- 

-  delay.
-  Telephone Call
-  Predefined Process.
-  E-Mail
-  Move physically.
-  Storage.
-  Select/Extract
-  Inspection.
- 
- 
-  OR
-  AND.
-  CD.
-  FAX

-  Print
-  Transport
-  Post office.
-  Any Communication Media.
-  Merge.
-  input/output.
-  Database.
-  Internal Storage.
-  Display.
- 
- 

-  package.
-  check.
-  Fax Copy.
-  Process.
-  Alternative Process.